

## CLAIMS

What is claimed is:

- 1 1. A computer-implemented method comprising:
  - 2 receiving, at an application server, a Web service archive including
    - 3 a Web service implementation, and
    - 4 a Web service deployment descriptor to describe a configuration of the Web
    - 5 service implementation on the application server; and
    - 6 deploying a Web service to a container on the application server based, at least in
    - 7 part, on the received Web service archive.
  
- 1 2. The method of claim 1, wherein the Web service archive further includes
  - 2 a virtual interface to provide an operation of the Web service implementation, and
  - 3 a Web service definition to specify a behavior of the virtual interface.
  
- 1 3. The method of claim 2, wherein the Web service deployment descriptor comprises:
  - 2 a Web service deployment descriptor to specify a configuration of the Web service
  - 3 definition.
  
- 1 4. The method of claim 1, further comprising:
  - 2 registering the deployed Web service with a registry on the application server.
  
- 1 5. The method of claim 5, wherein registering the deployed Web service comprises:
  - 2 automatically registering the deployed Web service with a Java Naming and
  - 3 Directory Interface (JNDI) of the application server.

1 6. The method of claim 1, wherein deploying the Web service to the container on the  
2 application server comprises:  
3 deploying the Web service to a Web services container on the application server.

1 7. The method of claim 1, wherein deploying the Web service to the container  
2 comprises:  
3 deploying the Web service to a dedicated implementation container.

1 8. The method of claim 7, wherein the dedicated implementation is an Enterprise Java  
2 Bean (EJB) container.

1 9. The method of claim 7, wherein the dedicated implementation is a servlet container.

1 10. An application server comprising:  
2 a network interface to connect to a node; and  
3 a processor and logic executable thereon to  
4 receive a Web service archive from the network interface, the Web service  
5 archive including  
6 a Web service implementation, and  
7 a Web service deployment descriptor to describe a configuration of the  
8 Web service implementation on the application server; and  
9 deploy a Web service to a container on the application server based, at least in  
10 part, on the received Web service archive.

1 11. The application server of claim 10, wherein the received Web service archive further  
2 includes

3 a virtual interface to provide an operation of the Web service implementation, and

4 a Web service definition to specify a behavior of the defined virtual interface.

1 12. The application server of claim 11, wherein the Web service deployment descriptor  
2 comprises:

3 a Web service deployment descriptor to specify a configuration of the Web service  
4 definition.

1 13. The application server of claim 10, wherein the processor and logic executable  
2 thereon further comprises:

3 a processor and logic executable thereon to register the deployed Web service with a  
4 registry on the application server.

1 14. The application server of claim 13, wherein the processor and logic executable  
2 thereon to register the deployed Web service with a registry on the application server  
3 comprises:

4 a processor and logic executable thereon to automatically register the deployed Web  
5 service with a Java Naming and Directory Interface (JNDI) of the application server.

1 15. The application server of claim 10, further comprising:

2 a Web services container; and wherein deploying the Web service includes deploying  
3 the Web service to the Web services container.

1 16. The application server of claim 10, further comprising:

2 a dedicated implementation container; and wherein deploying the Web service  
3 includes deploying the Web service to the dedicated implementation container.

1 17. The application server of claim 16, wherein

2           the dedicated implementation container is an Enterprise Java Bean (EJB) container;  
3   and wherein

4           deploying the Web service comprises deploying the Web service to the EJB  
5   container.

1   18.    The application server of claim 16, wherein  
2           the dedicated implementation container is a servlet container; and wherein  
3           deploying the Web service comprises deploying the Web service to the servlet  
4   container.

1   19.    The application server of claim 10, wherein the application server is a Web  
2   application server.

1   20.    The application server of claim 19, wherein the Web application server is a Java 2  
2   Enterprise Edition (J2EE) application server.

1   21.    A system comprising:  
2           a means for receiving, at an application server, a Web service archive including  
3               a Web service implementation, and  
4               a Web service deployment descriptor to describe a configuration of the Web  
5               service implementation on the application server; and  
6           a means for deploying a Web service to a container on the application server based, at  
7   least in part, on the received Web service archive.

1   22.    The system of claim 21, wherein the Web service archive further comprises:  
2           a virtual interface to provide an operation of the Web service implementation, and  
3           a Web service definition to specify a behavior of the defined virtual interface.

1 23. The system of claim 21, wherein the Web service deployment descriptor comprises:  
2 a Web service deployment descriptor to specify a configuration of the Web service  
3 definition.

1 24. The system of claim 21, further comprising:  
2 a means for automatically registering the deployed Web service with a registry on the  
3 application server.

1 25. The system of claim 24, wherein the means for deploying the Web service to a  
2 container on the application server comprises at least one of:  
3 a means for deploying the Web service to a Web service container on the application  
4 server; and  
5 a means for deploying the Web service to a dedicated implementation container on  
6 the application server.

1 26. The system of claim 25, wherein the dedicated implementation container is an  
2 Enterprise Java Bean (EJB) container.

1 27. The system of claim 25, wherein the dedicated implementation container is a servlet  
2 container.

1 28. An article of manufacture comprising:  
2 an electronically accessible medium providing instructions that, when executed by an  
3 apparatus, cause the apparatus to  
4 receive, at an application server, a Web service archive including  
5 a Web service implementation,

6                   a virtual interface to provide an operation of the Web service implementation,  
7                   a Web service definition to specify a behavior of the virtual interface, and  
8                   a Web service deployment descriptor to specify a configuration of the Web  
9                   service definition on the application server; and  
10                  deploy a Web service to a container on the application server based, at least in part,  
11                  on the received Web service archive.

1   29.   The article of manufacture of claim 28, wherein the electronically accessible medium  
2   providing instructions that, when executed by an apparatus, further cause the apparatus to  
3   register the deployed Web service with a registry on the application server.

1   30.   The article of manufacture of claim 29, wherein the instructions that, when executed  
2   by the apparatus, cause the apparatus to register the deployed Web service include  
3   instructions that cause the apparatus to  
4                  automatically register the deployed Web service with a Java Naming and Directory  
5   Interface (JNDI) of the application server.

1   31.   The article of manufacture of claim 28, wherein the instructions that, when executed  
2   by the apparatus, cause the apparatus to deploy the Web service to the container on the  
3   application server include instructions that cause the apparatus to  
4                  deploy the Web service to a Web services container on the application server.

1   32.   The article of manufacture of claim 28, wherein the instructions that, when executed  
2   by the apparatus, cause the apparatus to deploy the Web service to the container on the  
3   application server include instructions that cause the apparatus to  
4                  deploy the Web service to a dedicated implementation container on the application  
5   server.

1       33.     The article of manufacture of claim 32, wherein the instructions that, when executed  
2     by the apparatus, cause the apparatus to deploy the Web service to the dedicated  
3     implementation container on the application server include instructions that cause the  
4     apparatus to

5                 deploy the Web service to an Enterprise Java Bean (EJB) container on the application  
6     server.

1       34.     The article of manufacture of claim 32, wherein the instructions that, when executed  
2     by the apparatus, cause the apparatus to deploy the Web service to the dedicated  
3     implementation container on the application server include instructions that cause the  
4     apparatus to

5                 deploy the Web service to a servlet container on the application server.